

L 01820-67 EWT(m)/T/EWP(t)/ETI IJP(c) JD/JW/JG

ACC NR: AP6030965 SOURCE CODE: UR/0181/66/008/009/2664/2667

AUTHOR: Antipin, A. A.; Kurkin, I. N.; Livanova, L. D.; Potvorova, L. Z.; ³⁵
Shekun, L. Ya. ^B

ORG: Kazan State University im V. I. Ul'yanov-Lenin (Kazanskiy gosudar-
stvennyy universitet)

TITLE: Investigation of paramagnetic centers of Er³⁺ in BaF₂ and SrF₂ single
crystals ^{27 27} ^{v1}

SOURCE: Fizika tverdogo tela, v. 8, no. 9, 1966, 2664-2667

TOPIC TAGS: single crystal, impurity center, paramagnetic center, erbium,
barium fluoride, strontium fluoride

ABSTRACT: The authors investigated SrF₂ and BaF₂ single crystals with a Er³⁺
impurity. More trigonal and less cubic Er³⁺ centers were detected in both single
crystals. The dependence of the relative concentration of cubic and trigonal centers
on the total concentration of Er³⁺ was traced for the BaF₂:Er sample. Orig. art.
has: 1 formula and 2 tables. [Based on authors' abstract] [NT]

SUB CODE: 20 / SUBM DATE: 31Jan66 / ORIG REF: 003 / OTH REF: 005 /

Card 1/1 fv

L 11393-67 ENT(1)/ENT(m)/ENT(t)/ETI IJP(c) JD/JG/GG
ACC NR: AF7000391 SOURCE CODE: UR/0386/66/004/009/0338/03:1

AUTHOR: Zaitov, M. M.; Shekun, L. Ya.

47

ORG: Kazan' State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvennyy universitet)

TITLE: Effect of uniaxial compression on the paramagnetic resonance of Nd^{3+} in $CaWO_4$

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniya, v. 4, no. 9, 1966, 338-341

TOPIC TAGS: electron paramagnetic resonance, neodymium, calcium compound, tungstate, pressure effect, line shift

ABSTRACT: The authors analyze first the effect of uniaxial pressure on the ordinary spin-Hamiltonian with effective spin $1/2$ and estimate the perturbation of the Hamiltonian brought about by this pressure change. The results are compared with the shifts of EPR line of Nd^{3+} in $CaWO_4$ under the influence of uniaxial pressure, measured relative to the line position at a certain initial pressure. The measurement results yield three linear combinations of the components of the tensor representing the compression effect, the estimated value of which is $G \sim 10^{-20}$ erg/Gauss. Even this preliminary estimate leads to a few interesting conclusions, since the direct coupling of the Nd^{3+} ion to the $CaWO_4$ lattice turns out to be unexpectedly small and, most curiously, smaller than that obtained for Co^{2+} in MgO (E. B. Tucker, Phys. Rev. v. 143, 264, 1966). This contradicts the current opinion that rare-earth ions are

Card 1/2

SOURCE CODE: UR/0181/66/008/012/3658/3659

ACC NR: AF7005868

AUTHOR: Kurkin, I. N.; Shekun, L. Ya.
ORG: Kazan' State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvennyy universitet)TITLE: EPR of neodymium in CdMoO₄ scheelites

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3658-3659

TOPIC TAGS: laser material, epr spectrum, neodymium, activated crystal, cadmium compound, molybdate, scheelite, EPR, Hamiltonian

ABSTRACT: The authors determined the parameters of the spin Hamiltonian describing the EPR of Nd³⁺ contained in single-crystal CdMoO₄. The samples were prepared by the Czochralski method. The values of the constants obtained at 4.2K and ~9.4 GHz are listed. By comparing the results with data obtained for other scheelites in an earlier paper (FTT v. 8, 731, 1966) it is concluded that the parameters of the Hamiltonian of Nd³⁺ in CdMoO₄ obey the same laws that characterize all other scheelites, namely a smooth dependence on the lattice constant c. In particular, extrapolation of the curve for the g-factors in the earlier investigation yield excellent agreement with experiment. To decide conclusively that the regularities observed are universal, it is necessary to carry out experiments with Nd³⁺ in SrMoO₄ and PbWO₄. The authors thank A. M. Morozov for preparing the CdMoO₄:Nd samples. Orig. art. has: [WA-14] [02]

SUB CODE: 20/ SUBM DATE: 20Jun66/ ORIG REF: 001/ OTH REF: 001

UDC: none

Card 1/1

SHEKUN, N., propagandist (Chernigov)

Disseminate a knowledge of economics among the masses.
Sov. torg. 36 no.1:50-51 Ja '63. (MIRA 16:2)
(Chernigov—Economics—Study and teaching)

SHEKUN, Olimpiada Alekseyevna

[Third All-Russian Congress of Trade Unions] III Vserossiiskii
s"ezd profsoiuзов. Moskva, Profizdat, 1958. 75 p. (MIRA 14:10)
(Trade unions—Congresses)

()

ALEKSEYEV, F.K.; ANDRIYUTS, G.L.; ARSENT'YEV, A.I.; ASTAF'YEV, Yu.P.; BEVZ, N.D.; BEREZOVSKIY, A.I.; GENERALOV, G.S.; DOROSHENKO, V.I.; YESHCHENKO, A.A.; ZAPARA, S.A.; KALINICHENKO, V.F.; KARNAUSHENKO, I.K.; KIKOVKA, Ye.I.; KOBOZEV, V.N.; KUPIN, V.Ye.; LOTOUS, V.K.; LYAKHOV, N.I.; MALYUTA, D.I.; METS, Yu.S.; OVODENKO, B.K.; OKSANICH, I.F.; PANOV, V.A.; POVZNER, Z.B.; PODORVANOV, A.Z.; POLISHCHUK, A.K.; POLYAKOV, V.G.; POTAPOV, A.I.; SAVITSKIY, I.I.; SERBIN, V.I.; SERGEYEV, N.N.; SOVETOV, G.A.; STATKEVICH, A.A.; TERESHCHENKO, A.A.; TITOV, O.S.; FEDIN, A.F.; KHOMYAKOV, N.P.; SHEYKO, V.G.; SHEKUN, O.G.; SESTAKOV, M.M.; SHTAN'KO, V.I.

Practice of construction and exploitation of open pits of Krivoy Rog Basin mining and ore dressing combines. Gor. zhur. no.6:
8-56 Je '63. (MIRA 16:7)

(Krivoy Rog Basin--Strip mining)

SPEKTRUM, I.I.

Perfect organization of work in casting houses.
Mashinostroitel' no.9:39 - S '65.

(MFA 18:12)

SHEKUNOV, I.I.

Progressive technology of casting exhaust boxes for TEZ diesel
locomotive engines. Lit.proizv. no.7:16-17 Jl '61. (MIRA 14:7)
(Iron founding) (Gas and oil engines--Mufflers)

SHEKUNOV, N.

Stamping the ends of tin cans. Miss.ind.SSSR 25 no.1:57-59 '54.
(MLRA 7:3)

1. Vinnitskiy myasokombinat.

(Containers)

SHEKUNOV, N.

Improving the crankshaft of the "Nagema" firm's seamless can
press. Mias.ind.SSSR 30 no.1:44 '59. (MIRA 12:4)

1. Vinnitskiy myasokombinat.
(Power presses)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549010018-2

SHEKUNOV, YEVGRAF PORFIR'YEVICH

DECEASED

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APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549010018-2"

BOITSOV, Vasilii Vasil'yevich, prof.; GRIGOR'YEV, Vasilii Prokhorovich;
RAZUMIKHIN, Mikhail Ivanovich; SELEZNEVA, Anna Andreyevna;
SHEKUNOV, Ievgraf Porfir'yevich [deceased]; BELYAVSKIY, G.A.,
inzh., retsentent; BRODYANSKIY, Yu.M., inzh., red.; SUVOROVA,
I.A., izdat.red.; PUKHLIKOVA, N.A., tekhn.red.

[Assembling and mounting work] Sborochnye i montazhnye raboty.
Pod obshchei red. V.V.Boitsova. Moskva, Gos.izd-vo obor.promyshl., 1959. 476 p. (MIRA 13:5)
(Airplanes--Design and construction)

SHEKHURIN, Diodor Yefremovich; KHARITONOV, N.D., red.; VASIL'YEV,
Yu.A., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Analysis and dissemination of information] Analiz i obobshchenie
informatsii. Leningrad, Leningr. dom nauchno-tekhn. propagandy,
1962. 20 p.
(Information services) (Research)

L 15318-65 EWT(d)/EWT(m)/EWP(w)/EWP(c)/EWA(d)/EWP(v)/T-2/EWP(t)/EWP(k)/EWP(b)/
EWP(1) Pf-4 SSD/AFWL MJW/JD/EM
ACCESSION NR: AP4047832

S/0314/64/000/004/0035/0037

AUTHOR: Shel', M. M. (Engineer)

B

TITLE: Stress measurement in metals by the eddy current method

26

14

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 4, 1964, 35-37

TOPIC TAGS: metal stress, stress measurement, eddy current

9M

ABSTRACT: Several devices have been developed recently for measuring stress by electrical methods, including X-rays, magnetic measurements and measurement by eddy currents. The X-ray method has the highest accuracy, even though the other two methods take less time. The eddy current method yields more data than the magnetic method, and tests using the magnetic method have many other disadvantages. In the present paper, the author describes a special unit designed for measuring the differences in magnetic permeability and electrical conductivity along the direction of the applied forces and at right angles. The unit has two stretched coils arranged cross-wise (M. M. Shel', E. B. Stankevich, V. V. Sharov. Author's certificate, class 42k, 21, No. 151080 of Oct. 9, 1961), the circuit being shown in Fig. 1 of the Enclosure. The unit was calibrated with samples of St. 3 and 25Kh3NM steel, after which the anisotropy of a steel plate containing 42% Si, 15% CO, 0.07% Ni and 0.05% Si and machined on a planer was measured. Tests were also

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ACCESSION NR: AP4047832

2

made on an etched plate and on a high-pressure vessel under pressure. On the basis of these tests it was found that the best method for measuring the stresses should be determined individually in each case. When high accuracy is not very important, the eddy current method may be used. "The experiments were carried out under the direction of Ye. M. Korelev and V. I. Etingov." Orig. art. has: 6 figures and 4 equations.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: MM, EM

NO REF Sov: 006

OTHER: 000

Card 2/3

L15318-65
ACCESSION NR: AP4047832

ENCLOSURE: 01

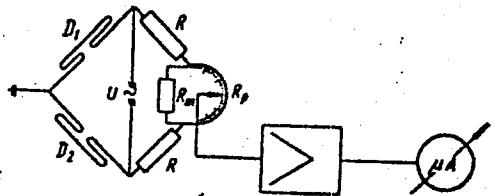


Fig. 1. Wiring diagram of the measuring device.

Card 3/3

KONYUKHOV, I., svarshchik, strakhovoy delegat (Barnaul); CHERTKOVA, Ye.,
planirovshchitsa, strakhovoy delegat (Barnaul); MOROZOVA, G.,
sparovshchitsa; strakhovoy delegat (Barnaul); SHEL', O.,
zatochnik (Barnaul); SHCHERBINA, I., svarshchik (Barnaul)

We are interested in everything. Okhr. truda i sots. strakh. 5
no.9:18 S '62. (MIRA 16:5)

1. Obshchestvennyye inspektora po okhrane truda Altayskogo
motornogo zavoda (for Shel', Shcherbina).
(Gus'-Khrustal'nyi—Industrial hygiene)

DEVIRTS, E.Ya.; NOVIKOV, A.S.; Prinimala uchastiye SHELAGINA, L.

Investigation of the structure of pure gum vulcanizates from
SKS-30 rubber containing indene-coumarone resins. Kauch. i
rez. 20 no.10:11-14 0 '61. (MIRA 14:12)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.
(Gums and resins, Synthetic)
(Rubber, Synthetic)

BOGOSLAVSKIY, R.V., prof.; BREGADZE, I.L., prof.; VELIKORETSKIY, A.N.,
prof.; VINOGRADOV, V.V., doktor med. nauk; GROZDOV, D.M., prof.;
GULYAYEV, A.V., prof.; DZHAVADYAN, A.M., doktor med. nauk;
KRAVCHENKO, P.V., prof.; LOBACHEV, S.V., prof.; NIKOLAYEV, O.V.,
prof.; PYTEL', A.Ya., prof.; SMIRNOV, A.V., prof.; FAYERMAN, I.L.,
prof.; FUTORYAN, Ye.S.; SHELAGU, A.A., zas. deyatel' nauki, prof.;
EOLYAN, R.O., prof.[deceased]; PETROVSKIY, B.V., prof., otv. red.;
SENCHILO, K.K., tekhn. red.

[Multivolume manual on surgery] Mноготомное руководство по хирургии.
[Surgery of the liver, biliary tract, pancreas, and spleen] Хирургия печени, желчных
путей, поджелудочного железы и селезенки. Мед.т.ма А.В.Гуляев.
(МИРА 15:6)
1962. 659 p.

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Petrovskiy).
(LIVER--SURGERY) (PANCREAS--SURGERY) (SPLEEN--SURGERY)

CA 5-2-1121R01 A-A.

115

The effect of deprivation and intake of liquids on metabolism during a fasting period. K. Shabagurov and K. Egorov. *J. Physiol.*, U. S. S. R., 23, 130-40 (in English) (1937).—An intake of H_2O during starvation results in an increase in urinary N , but does not affect the salt excretion. During the first few days of fasting a diuretic

effect is sometimes observed. Upon renewal of H_2O intake after deprivation, and upon renewal of food intake after a starvation period a retention of H_2O in the body tissues is noticed. S. A. Karjala

ASME-SEA METALLURGICAL LITERATURE CLASSIFICATION

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CIA-RDP86-00513R001549010018-2"

CA USE-A SKY FTR A.

118

Use of the step-photometer for differentiation of the varieties of van den Bergh reaction. A. A. Shchegurov.
Izv. Akad. Nauk SSSR, 20, No. 3, 80-5(1948).—In order to follow the stages of the van den Bergh reaction, a step-photometer was used, the coeff. of extinction of color being measured in serum. Curves are reproduced showing the onset and course of indirect and direct reactions. The curve for the indirect reaction rises slowly, that for the direct reaction sharply and immediately. The curve in normal subjects differs greatly from these, the onset of the rise being delayed and the rise very gentle.

MUSULYAK, N.M; SHELAGUROV, A.A.

Use of graded spectrophotometry for bilirubin liver
function test. Ter. arkh. 22 no.5:50-52 Sept-Oct 1950.
(CIML 20:1)

1. Of the Propedeutic Therapeutic Clinic (Director -- Prof.
V. Kh. Vasilenko, Corresponding Member of the Academy of
Medical Sciences USSR), First Moscow Order of Lenin Medical
Institute.

SHELAGUROV, A.A., professor: YURENEV, P.N.; MURASHKO, V.V.

On the subject of mitral commissurotomy. Khirurgiia no.8:11-16
Ag. '55. (MIRA 9:2)

1. Iz fakul'totskoy khirurgicheskoy kliniki (dir.-chlen. korrespondent
AMN SSSR prof. B.V. Petrovskiy) pediatricheskogo fakul'teta i
propedebticheskoy terapevticheskoy kliniki (dir.-prof. A.A.
Shelagurov) lechebnogo fakul'teta II Moskovskogo meditsinskogo
instituta imeni I.V. Stalina.

(MITRAL STENOSIS, surg.
commissurotomy)

SHELAGUROV, A.S., professor (Moskva)

Clinical aspects of pancreatic cancer. Klin.med. 34 no.4:5-12 Ap '56.
(MIRA 10:1)

1. Iz propedeviticheskoy terapeuticheskoy kliniki lechebnogo fakul'-
teta II Moskovskogo meditsinskogo instituta imeni I.V.Stalina.
(PANCREAS, neoplasms,
(Rus))

SERIALIZED INDEXED
SEARCHED

BERNSHTEYN, A.L. (Moskva); KRASIL'SHCHIK, R.B., kandidat meditsinskikh nauk
(Moskva); SHELAGUR'KOVA, A.A., kandidat meditsinskikh nauk (Moskva)
[deceased]

Observations on the treatment of tuberculous meningitis with
saluzid. Klin.med. 34 no.7:55-60 J1 '56. (MLRA 9:10)

1. Iz Infektsionnoy gorodskoy klinicheskoy bol'nitsy No.1 (glavnyy
vrach N.G.Zaleskver, nauchnyy rukovoditel' G.M.Kapnik)
(TUBERCULOSIS, MENINGEAL, ther.
isoniazid)
(ISONIAZID, ther. use
tuberc., medingeal)

SHELAGUROV, A.A., professor; YURENEV, P.N., dotsent; MURASHKO, V.V.
(Moskva)

Surgical therapy of mitral stenosis. Klin.med. 35 no.3:7-14 Mr '57.
(MLRA 10:?)

1. Iz propedevticheskoy terapevticheskoy kliniki (zav. kafedroy -
prof. A.A.Shelagurov) lechebnogo fakul'teta II Moskovskogo meditsin-
skogo instituta imeni Stalina.

(MITRAL STENOSIS, surg.
(Rus))

EXCERPTA MEDICA Sec 6 Vol 13/3 Internal Med. Mar 59

1532. OUT-PATIENT FOLLOW-UP OF CONVALESCENTS FROM INFECTIOUS
HEPATITIS (Russian text) - Shchegurov A. A. and Dobrovolskaya
T. I. - KLIN. MED. (Mosk.) 1957, 35/8 (119-125) Tables 2

Patients with epidemic hepatitis should be closely followed for at least 6-12 months after the acute disease. Only in this way is it possible to determine how often chronic hepatitis and cirrhosis of the liver follows the acute disease. In 133 cases, one case ended in cirrhosis and 10 patients (8%) in chronic hepatitis. Seventy-one of the patients were observed for 1-5 yr., and 43 of them 4-5 yr. Of the last-mentioned only 35 were completely cured while the others showed either an enlarged liver (8) or spleen (1) or a disturbance of one of the liver functions. With a long observation time it is possible to intervene in time with therapeutic measures to prevent a bad outcome. It is concluded that the earliest possible hospitalization is needed, for in this case the best results are achieved and there are stricter criteria for the assessment of a cure and the time of discharge from hospital.

Najman - Zagreb (L, 6)

SHELAGUOV, A.A., prof., SOKOLOV, Ye.I., kand.med.nauk

Clinical aspects and diagnosis in an atypical course of myocardial infarct. Terap.arkh. 30 no.9:56-62 S'58 (MIRA 11:10)

1. Iz kafedry propedevtiki vnytrennykh bolezney (zav. - prof. A.A. Shelagurov) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.

(MYOCARDIAL INFARCT, case reports,
atypical, diag. & clin. course (Rus))

SHELAGUROV, A.A., prof.; YURENEV, P.N., dotsent

Diagnosis of mitral stenosis and its relation to surgical therapy.
Terap.arkh. 31 no.12:45-50 D '59. (MIRA 13:4)

1. Iz propedevticheskoy terapeuticheskoy kliniki (zav. - prof. A.A. Shelagurov) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I. Pirogeva.
(MITRAL STENOSIS diag.)

SHELAGUROV, A.A., prof; YURENEV, P.N., dotsent (Moskva)

Clinical picture of a primary tumor of the left auricle.
Klin.med. 37 no.6:116-123 Je '59. (MIRA 12:8)

1. Iz propedevticheskoy terapevticheskoy kliniki (zav. prof. A.A.Shelagirov) II Moskovskogo meditsinskogo instituta imeni N.I.Pirozova.

(HEART, neoplasms
primary, of left auricle, differ. diag. from
mitral stenosis (Rus))
(MITRAL STENOSIS, differ. diag.
primary tumor of left auricle (Ger))

SHELAGUROV, Aleksey Alekseyevich

[Clinical aspects of pancreatic cancer] Klinika raka podzheludochnoi zhelezy. Moskva, Medgiz, 1960. 229 p. (MIRA 13:8)
(PANCREAS--CANCER)

SHELAGUROV, A.A.

Clinical aspects of cancer of the head of the pancreas. Khim. med.
38 no.5:12-20 My '60. (MIRA 13:12)
(PANCREAS---CANCER)

SHELAGUROV, A.A., prof.; ROVINSKIY, V.I.

Problem of fatal outcome in seizures of bronchial asthma. Terap.
arkh. 33 no.3:26-32 Mr '61. (MIRA 14:3)

1. Iz propedevticheskoy terapeuticheskoy kliniki (dir. - prof.
A.A. Shelagurov) II Moskovskogo meditsinskogo instituta imeni
N.I. Pirogova.
(ASTHMA)

SHELAGUROV, A.A., prof.; DOBROVOL'SKAYA, T.I., dotsent; IL'IN, D.P.

Hospitalization and treatment of patients with myocardial infarction complicated by collapse. Klin. med. 40 no.11:
62-68 N°62
(MIRA 16:12)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof. A.A.Shelagurov) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I.P'rogova.

SHELAGUROV, A.A., zasluzhennyy deyatel' nauki, prof.; YURENEV, P.N.;
POROSHINA, Yu.A.; ALEKSEYEVA, T.A.

Study of allergic factors in the clinical aspects of internal
diseases; prelimiray report. Sov.med. 26 no.2:17-23 F'63.
(MIRA 16:6)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - za-
sluzhennyy deyatel' nauki prof. A.A.Shelagurov) lechebnogo
fakul'teta II Moskovskogo meditsinskogo instituta imeni
N.I.Pirogova i nauchno-issledovatel'skoy allergologicheskoy
laboratorii (zav. - chlen-korrespondent AMN SSSR prof. A.D.
Ado).

(ALLERGY) (MEDICINE, INTERNAL)

SHELAGUROV, A.A., prof.; ADRIANOVA, N.V. (Moskva)

Course of propedeutics of internal diseases in the third year
of Medical Institutions of Higher Education. Klin. med. 41
no.7:150-152 Jl '63 (MIRA 16:12)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof.
A.A.Shelagurov) lechebnogo fakul'teta II Moskovskogo meditsin-
skogo instituta imeni N.I.Pirogova.

SHELAGUROV, Aleksey Alekseyevich; Prinimali uchastiyе: ANDRIANOVA,
N.V.; DOBROVOL'SKAYA, T.I.; MURASHKO, V.V.; MALINOVSKAYA,
N.I.; SEMEN, N.D.; ARTEM'YEV, S.G., red.; MIL'CHIKOVA, A.M.,
tekhn. red.

[Methodology of examination in the clinic for internal
diseases] Metody issledovaniia v klinike vnutrennikh bo-
leznei. Izd.2., ispr. i dop. Moskva, Izd-vo "Meditina,"
1964. 474 p. (MIRA 17:3)

*

SHELAKHIN, F.

Coal Miners

Great Stalinist care for miners. Prof. sciuz, No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

SHELAKHIN, P.

Coal Mines and Mining

The Soviet miner is the happiest miner in the world. (We have seen! [in French])
Reviewed by P. Shelakhin). Prof. sciuzy 8, No. 3, 1953.

a. Monthly List of Russian Accessions. Library of Congress, June 1953, Incl.

SHELAKHIN, P., sekretar'.

Militant organization of miners of the world. V pom.profaktivu 14 no.14:
17-kl Jl '53. (MLDA 6:?)

1. TSentral'nyy komitet profsoyuza rabochikh ugol'noy promyshlennosti.
(Miners--Congresses)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549010018-2

AFANAS'YEV, N.; KORCHAGINA, Z.; PANOV, V.; SHELAKHIN, P.

Words of truth about the Soviet Union. Sov.profsoiuzy 2 no.5:77-86 My '54.
(MLRA 7:6)

(Russia--Description and travel)

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CIA-RDP86-00513R001549010018-2"

SHELAKHIN, P.

International miners' union. Mast.ugl.3 no.3:30-31 Mr :54,
(MLRA 7:4)
(Coal miners) (Trade unions)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549010018-2

McCart, R. I.

McCart, R. I., 1930-1980, American football player,
linebacker, Boston College, 1952-53; NFL, 1954-57

McCart, R. I., 1930-1980

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CIA-RDP86-00513R001549010018-2"

SHELAKHIN,P.

Higher work standard of trade-union councils. Sov.profsciuz 3 no.9:
17-24 S'55. (MIRA 8:12)

1. Zaveduyushchiy Organizatsionno-instruktorskim otdelom Vsesoyuznogo
TSentral'nogo Soveta professional'nykh soyuzov
(Trade unions)

SHELAKHIN, P.

Raise the organizing role of trade-union committees and councils.
Sov.profsoiuzy 4 no.2:24-29 F '56. (MLRA 9:5)

1. Zaveduyushchiy Organizatsionno-instruktorskim otdelom Vsesoyuznogo TSentral'nogo Soveta professional'nykh soyuzov.
(Trade unions)

SHELAKHIN, P.

Training and instruction of the trade-union activist group Sov.
profsoiuzy 4 no.11:7-12 N '56.
(MIRA 10:1)

1. Zavedyugchiy Organizatsionno-instruktorskim otdelom Vsesoyuznogo
tsentral'nogo soveta professional'nykh soyuzov.
(Trade unions)

SHELAKHIN, P.I.; GUDKOV, I.N.; KHITROV, F.T.; NOVOSPASSKIY, V.V., red.;
SHADRINA, N.D., tekhn.red.

[Collection of directives on the work of trade unions] Sbornik
rukovodящихchikh materialov po organizatsionno-massovoi rabote
profsoiuzov. [Moskva] Izd-vo VTsSPS Profizdat, 1957, 167 p.
(Trade unions) (MIRA 11:5)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549010018-2

KACHAN, Ya.; SHELAKHIN, P.

Close to life and production. Sov.profsoiuzy 5 no.11:41-45 N '57.
(MIRA 10:11)
(Kazakhstan--Trade unions)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549010018-2"

DDV-132-58-8-1/16

Selatkin, P.I., Chairman of the Central Committee of the Trade Union

AUTHOR: Selatkin, P.I., Chairman of the Central Committee of the Trade Union

TITLE: In Anticipation of the All-Union Conference of Efficiency Experts, Inventors and Innovators of the Geological-Prospecting Service (Navstrechu Vsesoyuznomu sov'stchaniyu ratsionalizatorov, izobretateley i novatorov geologorazvedochnoy sluzhby.)

PERIODICAL: Razvedka i okhrana nedr, 1958, Nr 8, pp 1-3 (USSR)

ABSTRACT: The above mentioned conference will take place in Sverdlovsk from 7 to 11 October 1958. The author describes the aims of the conference in propagating new methods and new tools, as well as measures to be taken in order to increase mechanization of mining operations, etc. He also mentions the large sums of money saved by the following propositions and inventions: 1) a self-releasing elevator and a perfected hoist, invented by the senior foreman D.N. Kadochnikov from the Ural Geological Administration, which helped to mechanize hoisting; 2) a device for automatic screwing and unscrewing of drilling pipes proposed by N.V. Sokolov of the trest Luganskuglegeologiya (The Luganskuglegeologiya).

Card 1/2

In Anticipation of the All-Union Conference of Efficiency Experts, Inventors
and Innovators of the Geological-Prospecting Service

SCV-132-58-8-1/16

"Geology Trust" 3) a portable seismograph invented by
Mechanic V.D. Korolev of the "Geologorazvedka" plant.
According to the directives of the XX Conference of the Com-
munist party, the activity in this field must be further
intensified, all deficiencies in the organization must be
eliminated and the introduction of new methods and the me-
chanization of mining works must be accelerated.

ASSOCIATION: The Profsoyuz rabochikh geologorazvedochnyh rabot (The
Trade Union of Geological — Prospecting Workers)

1. Geology--USSR 2. Geophysical prospecting--Equipment 3. In-
dustry--USSR 4. Personnel--Performance

Card 2/2

Soviet Union

AUTHOR: ~~Geological Prospecting Committee of the Central Committee~~ 152-58-0-1/15
~~CONFERENCE OF GEOLOGICAL PROSPECTORS~~

TITLE: Raise the Work Standard of All Organizations of the Trade-Union of Geological Prospecting Workers! (Povysit' uroven' raboty vsekh organizatsiy profsoyuzov ratochikh geologorazvedochnykh rabot)

PERIODICAL: Razvedka i Okhrana Nedr, 1958, Nr 6 pp 1-6 (USSR)

ABSTRACT: The Third Conference of the Trade-Union of Geological Prospecting Workers took place in May 1958. In the past two years much has been achieved by the members: the world's best deposits of iron ore were discovered in the Belgorod region; huge deposits of brown iron ore were discovered in West Siberia; large deposits of oil were explored in the Kuybyshev, Saratov and Perm Oblasts, the Stavropol' district and the Ukrainian SSR. The Soviet Union is the world leader in explored reserves of oil, iron and manganese ores, copper, lead nickel, salt and diamonds (in the Yakut ASSR). The USSR has 57% of the world's coal reserves. The decision of the last conference (in 1956) to decentralize the trade-union caused many satisfactory changes in the working of the central committee, which could devote more time to the more important questions of labor organization. But

Card L/2

132-58-6-1/13

Raise the Work Standards of All Organizations of the Trade-Union of Geological Prospecting Workers)

the lower branches of the union are still not working satisfactorily, neglecting the welfare of its members, taking only a small part in the educational work of the regions, oblasts and republics. These complaints were made chiefly by the following conference delegates: A.V. Gavrilenko (Kazakhstan), G.P. Mokarev (Primorye), B.I. Zvarygin (Krasnoyarsk), V.N. Knyazeva, Kh. Sizimayambetov and G.S. Stadnik. New principles of work, new tools, new methods are introduced too slowly. The conference heard a lecture by the Minister of Geology and Deposits Conservation of the USSR, P.Ya. Antropov, on "The Project of the prospective plan for the Development of Geologic and Exploratory works for 1959 - 1965".

ASSOCIATION: Central Committee of the Labor Union of Geological Prospectors
Card 2/2 L. Geology-Conference 2, Personnel-Standards

SHELAKIN, P.

Under the badge of trade-union democracy. Sov. profsoiuzy 6
no. 5; 140-145 My '58. (MIRA 11:5)

1. Zaveduyushchiy Organizatsionno-instruktorskim otdelom
Vsesoyuznogo tsentral'nogo soveta profsoyuzov.
(Trade unions)

AUTHOR: Shelakhin, P.I., President SOV/132-59-1-14/18

TITLE: To New Successes in the Fight for Communism (K novym uspekhам v bor'be za kommunizm)

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 1, pp 53-55 (USSR)

ABSTRACT: In connection with the Seven Year Plan, a plenary session of the TsK profsoyuza rabochikh geologorazvedchnykh rabot (Central Committee of the Trade Union of Geological and Prospecting Workers) took place in Moscow on 19 and 20 December, 1958. After enumerating different achievements already made by the Soviet workers, the committee appealed to them to continue their fight for Communism.

ASSOCIATION: TsK profsoyuza rabochikh geologorazvedchnykh rabot (Central Committee of the Trade Union of Geological and Prospecting Workers)

Card 1/1

SHELAKHIN, P.

Korean encounters. Mast.ugl. 8 no.6:26 Ja '59.
(MIRA 12:10)

1. Predsedatel' TSentral'nogo komiteta profsoyuza rabochikh
geolograzvedochnykh rabot.
(Korea--Coal miners)

SHELAKHIN, P.I.

To new successes in the struggle for communism. Razved. i
okh.nedr 25 no.1:53-55 Ja '59. (MIRA 12:2)

1. Predsedatel' TSentral'nogo komiteta profsoyuza rabochikh
geologorazvedochnykh rabot.
(Labor and laboring classes)

SHELAKHIN, P.I.; NABIYEV, K.A.

Delegation of the Soviet trade unions in the Chinese People's Republic. Razved. i okh. nedr 27 no.4:53-55 Ap '61.

(MIRA 14:5)

1. Tsentral'nyy komitet profsoyuza rabochikh geologorazvedochnykh rabot (for Shelakhin), 2. Geologos"yemochnaya poiskovaya ekspeditsiya Glavgeologii Uzbekskoy SSR (for Nabiyev).

(China—Economic geology)

SHEIAKHIN, P.I.

Approaching the Fourth Congress of the Trade Union of Prospecting Workers. Razved. i okh. nedr 26 no.4:1-4 Ap '60. (MIRA 15:7)

1. Predsedatel' TSentral'nogo komiteta professional'nogo soyuza rabochikh geologorazvedochnykh rabot.
(Prospecting) (Trade unions--Congresses)

SHELAKHIN, P.I.

Raise the level of work in the communist training of workers.
Geod. i kart. no.9:3-8 S '63. (MIRA 16:10)

SHELAKHIN, P.I.

Our consultations. Sov. profsciuz 19 no.20:44-46 0 '63.
(MIRA 16:11)

1. Predsedatel' TSentral'nogo komiteta professional'nogo
soyuza rabochikh geologorazvedochnykh rabot.

SHELAKHIN, P.I.

Increase the importance of the role of the trade union in
communist construction. Razved. i okh. nedr 29 no.11:3-8
N '63. (MIRA 17:12)

1. Predsedatel' TSentral'nogo komiteta professional'nogo soyuza
rabochikh geologorazvedochnykh rabot.

СИРИЯ, 1958

Fourth International Congress of the Metal and the Mining Industry.

Барселона, мэр 30, № 4: 1-56 Ap 1958.

(MIGA 17:12)

и. Центральный комитет профсоюза металлургов СССР. Результаты организационных и научно-технических работ.

SHELAKHIN, P.I.

Let us properly greet the Sixth Trade-Union Congress.
Razved. i okh. nedr 29 no.6:5-8 Je '63. (MIRA 18:11)

1. TSentral'nyy komitet professional'nogo soyuza rabochikh
geologorazvedochnykh rabot.

SHELAKHIN, P.I.

A fitting meeting for the congress of the trade unions
of prospectors for minerals. Razved. i okh. nedr 31 no.7:
58-61 Jl '65. (MIFA 18:11)

1. TSentral'nyy komitet professional'nogo soyuza rabochikh
geologorazvedochnykh rabot.

TEBYAKINA, A.Ye.; CHAYKOVSKAYA, S.N.; BALDINA, A.V.; ZAKINA, I.L.;
BRODSKAYA, T.A.; SHELAKINA, A.I.

Optimal conditions for determining the sterility of an antibiotic
cultural liquid [with summary in English]. Antibiotiki 3 no.6:108-110
N-D '58. (MIRA 12:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov i
zavod medpreparatov No.8.
(ANTIBIOTICS)

REF ID: AAT79/1507/1507
ACC NR: AP7003671

SOURCE CODE: UR/0079/66/036/008/1507/1507

AUTHOR: Lysenko, V. V.; Snelakova, I. D.; Karavanov, K. V.; Ivin, S. Z.
ORG: none

TITLE: Pentacovalent phosphorus compounds. Interaction of methyltetrafluorophosphine with carboxylic acid anhydrides

SOURCE: Zhurnal obshchey khimii v. 36, no. 8, 1966, 1507

TOPIC TAGS: alkylphosphine, carboxylic acid anhydride, fluorinated organic compound

ABSTRACT: Methyltetrafluorophosphine was found to react with acetic, propionic, and butyric anhydrides, forming methyldifluorophosphine oxide and fluorides of the corresponding acids. The reaction rate drops with increasing molecular weight of the carboxylic acid anhydride, and the yield of the substances formed decreases. The authors intend to publish a further series of reports on the chemistry of pentacovalent phosphorus compounds under the title, "Derivatives of Phosphorus Acids Containing the P-F Bond." [JPRS: 38,970]

SUB CODE: 07 / SUM DATE: 04Mar66 / OTH REF: 002

Card 1/1 jb

0926 0201

IVIN, S.Z.; KONDRAT'YEV, Yu.A.; SHELAKOVA, I.D.; ZAYSHLOVA, I.A.; GUBENKO, I.I.

Reactivity of ethylenamide-O-alkylmethyl phosphinates and
thio phosphinates. Zhur. ob. khim. 35 no.7:1218-1220 Ju '65.
(MIRA 18:8)

IVIN, S.Z.; SHELAKOVA, I.D.

Reaction of alkylene sulfides with alkylidichlorophosphines.
Zhur. ob. khim. 35 no. 7:1220-1221 Jl '65. (MIRA 18:8)

VLADYCHINA, Ye.N.; SEREBRYANIKOV, S.N.; SHELEKHINA, A.L.

Electric properties of paint materials and the optimum conditions
of their spraying in the electric field. Lakokras. mat. i ikh
(MIRA 16:10)
prim. no.4:32-36 '63.

SHELAKHOV, G., general-leytenant

Role of the staff in organizing the battle training and duty of
troops. Voen.vest. 40 no.2:50-53 F '61. (MIRA 14:2)
(Military education)

ARIYEVICH, A.M.; VIKHREVA, O.G.; TYUFILINA, O.V.; LIVANOVA, N.K.; BLUDOVA,
N.M.; VATOLINA, V.M.; SHEKLAKOVA, A.A.; KEMENEVA, M.P.;
VARDASHKINA, M.A.; SOROKINA, I.I.

New trends in the treatment of fungal diseases of the skin. Sov.
med. 26 no.6:52-56 Je '62. (MIRA 15:11)

1. Iz mikologicheskogo otdela (zav. - prof. A.M.Ariyevich)
TSentral'nogo kozhno-venerologicheskogo instituta i klinicheskoy
kozhno-venerologicheskoy bol'nitsy imeni Korolenko, Moskva.
(DERMATOMYCOSIS) (GRISEOFULVIN) (FUNGICIDES)

IVIN, S.Z.; SHELAKOVA, I.D.

Synthesis of alkylselenophosphinyl dichlorides. Zhur.ob.khim.
31 no.12:4052-4053 D '61. (MIRA 15:2)
(Phosphinic acid)

L 52107-65 EFF(c)/EWP(j)/EWT(m) PC-4/PR-4 RM

ACCESSION NR: AP5015239

UR/0286/65/000/009/0022/0022

AUTHORS: Ivin, S. Z.; Promonenko, V. K.; Shelakova, I. D.; Levin, B. B.; Fetin, I. N.

TITLE: A method for obtaining phosphinic acid esters. Class 12, No. 170497 6 22
B

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 22

TOPIC TAGS: ester, phosphinic acid, alkylphosphinic acid, alkylene oxide, phenylvinylphosphinic acid

ABSTRACT: This Author Certificate presents a method for obtaining phosphinic acid esters by interacting warmed alkylphosphinic acids with alkylene oxides. To broaden the assortment of the esters, alkylphosphinic acids are replaced by α -phenylvinylphosphinic acid. An alternate process may be conducted at 120-135°C.

ASSOCIATION: Organizatsiya gosudarstvennogo komiteta khimicheskoy promyshlennosti pri gosplane SSSR (Enterprise of the State Committee of the Chemical Industry at the Gosplan SSSR)

SUBMITTED: 30Sep63

ENCL: 00

SUB CODE: 00

NO REF Sov: 000

OTHER: 000

Card 1/17^{mb}

SHELAMANOV, N.

Seasonal construction yards. Sel'stroi. 13 no.11:15-17
(MIRA 11:12)
N '58.

1. Glavnyy tekhnolog instituta "Rosgiprosel'stroy."
(Precast concrete)

SHELAMANOV, N.A., inzh.

Anchoring of precast reinforced concrete structures on flat and gondola railroad cars. Energ. stroi. no.34:95-98 '63. (MIRA 17:1)

1. Moskovskiy filial Vsescyuznogo instituta po proektirovaniyu organizatsiy energeticheskogo stroyitel'stva.

PHASE I BOOK EXPLOITATION SOV/5685

Fridlyander, I. N., Doctor of Technical Sciences, and B. I. Matveyev, Candidate of Technical Sciences, eds.

Tepioprochnyy material iz spechennoy aliuminiyevoy pudry [SAP]; sbornik statey (Heat-Resistant Material From Baked Aluminum Powder [SAP]; Collection of Articles) Moscow, Oborongiz, 1961. 122 p. Errata slip inserted. 3,550 copies printed.

Reviewers: M. F. Bazhenov, Engineer, and M. Yu. Bal'shin, Candidate of Technical Sciences; Ed.: M. A. Bochvar, Engineer; Ed. of Publishing House: S. I. Vinogradskaya; Tech. Ed.: V. I. Oreshkina; Managing Ed.: A. S. Zaymovskaya, Engineer.

PURPOSE : This collection of articles is intended for scientific workers and engineers in the institute and plant laboratories of the metallurgical and machine-building industry; it may also be useful to instructors and advanced students.

COVERAGE: The 12 articles contain the results of research on the structure, properties, and manufacture of semifinished products
Card 1/5

Heat-Resistant Material From (Cont.)

SOV/5685

from sintered aluminum powder. The technology for the manufacture of aluminum powder and briquets is described as are sintering processes, and pressing, rolling, drawing, and sheet-stamping methods. The dependence of the properties of semifinished products on the aluminum-oxide content of the powder, on the degree of hot and cold deformation, and on the stresses of pressing is investigated. Also investigated are the mechanical and corrosive properties of semifinished products, the mechanism of hardening of sintered aluminum powder, the reasons for blister formation, and the possibility of recrystallization. Data on sintered aluminum alloys are included. No personalities are mentioned. References in the form of footnotes accompany the articles.

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SOV/5685

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The work was carried out with the participation of Engineer R. F. Filimonova and Technicians V. I. Sverlov and O. A. Kolosov.

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Card 4/5

Heat-Resistant Material From (Cont.) SOV/5685

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Matveyev, B. I., P. V. Kishnev, and I. R. Khanova. Properties of Semifinished Products From Sintered Aluminum Powder	108
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AVAILABLE: Library of Congress

JA/wrc/jw
10-27-61

Card 5/5

SHELAPOV, V.A.

Method of preparing aluminum powder. Izv. vys. ucheb. zav.,
tsvet. et. 4 no. 1:134-139 '61. (ILL 14:2)

1. Krasnoyarskiy institut tsvetnykh metallov, Kafedra obrabotki
metallov i videnivaniya.
(Aluminium) (Powder metallurgy)

VARLAMOV, M.L.; G. LAVROVICH; K. K. MANAKIN, S. A.: Prinimali uchastiye:
POLUKHINA, T. V.; PRODAKOVSKIY, V. V.; SOROKHOVA, L. V.;
TUL'CHINSKAYA, K. V.; TSITKO, F. S.; SHELAMOV, V. A.

Removal of phthalic anhydride from the waste gases in the production
of glyptal and pentaphthalic varnishes. Nauch. zap. Od. politekh.
Inst. 20(1981) 162.
(MIRA 17:4)

ACCESSION NR: AT4012715

S/2981/63/000/002/0071/0077

AUTHOR: Shelamov, V. A.

TITLE: Investigation of some conditions for hot rolling of SAP

SOURCE: Alyuminiyevye splavy*. Sbornik statey, no. 2. Spechenny*ye splavy*.
Moscow, 1963, 71-77

TOPIC TAGS: powder metallurgy, sintered powder, aluminum powder, sintered
aluminum powder, hot rolling, SAP, alumiaum

ABSTRACT: This investigation, under the guidance of Prof. I. L. Perlin and Eng. S. I. Nomofilov, was carried out to determine the optimal parameters for the hot-rolling of pressed blanks made of grade APS-1 SAP containing 6-8% Al_2O_3 . Formulas are given for calculating the widening of a rolled specimen, consisting of widening due to slipping on the contacting surface, widening because of barrel formation and widening due to spreading of the sides on the contacting surface. The theoretical and experimental values showed good agreement. The coefficient of friction during rolling of SAP drops rapidly as the temperature increases. An increase in reduction up to 50% when rolling SAP leads to an increase in specific pressure, while a further increase in total reduction (up to 90%) leads to its lowering. The coefficient of friction increases in the same way as the total

Card 1/2

ACCESSION NR: AT4012715

reduction. These changes in specific pressure and coefficient of friction may be explained by the high thermal effect resulting from the deformation of SAP. The specific pressure drops as the temperature during rolling increases. The force parameters for rolling of SAP differ significantly from the data for common aluminum alloys, but preliminary heating of the SAP sample had no effect on these parameters. Orig. art. has: 7 figures and 4 formulas.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 13Feb64

ENCL: 00

SUB CODE: MM

NO REF SOV: 003

OTHER: 000

2/2

Card

ACCESSION NR: AT4012723

S/2981/63/000/002/0130/0134

AUTHOR: Shelamov, V. A.; Zhuravlev, F. V.

TITLE: Anisotropic properties of SAP during hot rolling

SOURCE: Alyuminiyevye splavy*. Sbornik statey, no. 2. Spechennyye splavy*.
Moscow, 1963, 130-134

TOPIC TAGS: powder metallurgy, aluminum powder, sintered powder, aluminum, sintered aluminum powder, hot rolling, anisotropy, SAP

ABSTRACT: The author studied the influence of annealing of the blank and direction of rolling on the uniform distribution of mechanical properties in hot-rolled sintered aluminum powder. The work was performed on sheets of pressed SAP (12 x 5 x 100 mm) containing 7.5-8.0% Al₂O₃, subjected to a total deformation of 75% at 450-470C. A study of the mechanical properties showed that the ultimate strength, yield point, relative elongation and narrowing of transverse samples of hot-rolled SAP are higher than for longitudinal samples. This is explained by the peculiarities of the strengthening process in SAP during rolling. The direction of rolling does not influence the variation in properties of the material when the degree of deformation increases, except that the ultimate strength is lowered significantly for a degree of deformation of 40-50% with a following increase to
Card 1/2

ACCESSION NR: AT4012723

the initial value. The properties changed in a more uniform way during increasing total deformation for materials which had first been annealed than those which had not been annealed. There is almost no area of flow on the graphs obtained when testing microsamples of SAP for elongation. The structure of the material is uniform and stable, but a tendency toward texture formation is observed as the total reduction increases. "The work was carried out under the direction of Prof. I. L. Perlin (Doctor of Technical Sciences)." Orig. art. has: 4 figures.

ASSOCIATION: Kafedra obrabotki metallov davleniyem MATI (Department for the Pressure Treatment of Metals, MATI)

SUBMITTED: 00

DATE ACQ: 13Feb64

ENCL: 00

SUB CODE: MM

NO REF Sov: 003

OTHER: 000

Card 2/2

L 10105-63

EWP(q)/EWT(m)/BDS--AFFIC/ASD--JB/JII

S/0142/63/000/002/0162/0166

ACCESSION NR: AB3000005

AUTHOR: Shelamov, V. A.

TITLE: On the strengthening mechanism in sintered-aluminum-powder parts

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 2, 1963, 162-166

TOPIC TAGS: sintered aluminum (SAP) sheet, strengthening, softening, hot
rolling, cold rolling, extrusion, strength, ductility

ABSTRACT: Changes in the mechanical properties of sintered aluminum (SAP) sheets (containing 6.5--9% Al sub 2 O sub 3) occurring during hot and cold rolling have been investigated. Hot rolling (with total reduction of 83%) of extruded SAP bars increases tensile strength at 200C from initial 27--28 to 28--31 kg/mm sup 2. Subsequent cold rolling brings about further strengthening (up to 36 kg/mm sup 2), but when total reduction in cold rolling exceeds 60--67%, tensile strength drops to 30 kg/mm sup 2. The same pattern is observed in tests at 350--500C, but in this case strength begins to drop at the very beginning of the cold rolling. Elongation at 20, 350, and 500C decreases steadily with increased total reduction.

Card 1/3

L 10105-63
ACCESSION NR: AP3000985

The peculiar character of these changes appears to be associated with the breakdown of the previously formed Al_{2}O_3 network and with the increase in the quantity of oxide particles (i.e., particle-size reduction), with simultaneous occurrence of mechanical and diffusion bonding. During hot rolling, there is little increase in temperature, and diffusion is slight; the only source of strengthening is mechanical bonding of crushed grains, accompanied by texturing, i.e., preferred orientation of a previously formed oxide network. Subsequent cold rolling destroys the oxide network, and microcracks develop. At the same time, displacement of microcrack planes prevents self-healing, which can occur only as a result of mechanical or diffusion bonding. Such bonding (self-healing) takes place if sufficient heat is liberated during plastic deformation, which explains the beneficial effect of cold working on the room-temperature tensile strength. Diffusion without pressure as it occurs at tests at elevated temperatures may lower the strength of the bond, since it causes the redistribution of brittle constituents (oxide particles not bound to the lattice), and a strong bond, produced earlier by mechanical bonding without the aid of diffusion, may be destroyed as a result of diffusion. This explains why at 350--500°C cold-rolled SAP has a tensile strength lower than that of hot-rolled SAP. The increase in oxide-particle dispersion with increased reduction by cold rolling was confirmed by microscopic examination. The number of particles per square centimeter at first

Card 2/3

L 10105-63

ACCESSION NR: AP3000985

increased slowly with reduction (hot rolling) up to 80%; beyond this point (during cold rolling) the rate of increase rose sharply. It is concluded that in the cold rolling of SAP sheets there is a critical degree of total deformation at which an irreversible breakdown of the oxide network occurs, accompanied by a partial softening of the material. Orig. art. has: 5 figures.

ASSOCIATION: Moskovskiy institut stali i splavov. Kafedra tekhnologii i avtomatizatsii prokatnogo proizvodstva (Moscow Institute of Steel and Alloys. Department of Technology and Automation of Rolling Production)

SUBMITTED: 08Jan63 DATE ACQ: 21Jun63 ENCL: 00

SUB CODE: 00 NO REF SOV: 007 OTHER: 001

gok/ar
Card 3/3

L 14476-65 EWT(m)/EWP(k)/EWP(b)/EWA(d)/EWP(t) Pf-4 IJP(c)/ASD(m)-3 JD/HW
S/2981/63/000/002/0048/0057

ACCESSION NR: AT4012712

AUTHOR: Zakharov, M. F.; Zhuravlev, F. V.; Nomofilov, S. I.; Shelamov, V. A. B

TITLE: SAP sheet rolling 6

SOURCE: Alyumin'evye splavy*. Sbornik stately, no. 2. Spechennyye splavy*.
Moscow, 963, 48-57

TOPIC TASS: sintered aluminum powder, SAP, aluminum rolling, SAP rolling, aluminum pressing, sheet rolling, aluminum sheet, SAP sheet

ABSTRACT: Two special flat containers were designed and tested in order to adapt the available machinery to the rolling of wider SAP sheets. For cold briquetting, a container was designed with 59.5 kg/mm² load and a 140 x 535 x 1240 mm stamp. For hot briquetting and sheet pressing, the container was designed with 52 kg/mm² load and a 155-170 x 550-570 x 1240 mm stamp. Using the containers with a 5000-ton horizontal hydraulic press, SAP strips with a 30 x 410 mm cross section were obtained from 60-80 kg APS-1 powder charges with 6.5-8.5% Al₂O₃ and a density of 1.1-1.4 kg/cm³, in a four-operation process of successive 1) cold briquetting in 125 x 52 x 900 mm sheet-aluminum molds (or in the first container), 2) hot compacting in the second container at 410-420°C and a specific pressure of 45-52 kg/mm², to a density of 2.6-2.7 g/cm³, 3) hot rolling of the obtained blanks in

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L 14476-65
ACCESSION NR: AT4012712

a three-high rolling mill at 80-100C and a rate of 1.41 m/sec., and 4) cold rolling of the blanks (preheated at 440C, etched with 15% NaOH, treated with 10% HNO₃, and washed with water, to clear of flaws) in a twin rolling mill at a rate of 1.1 m/sec. The existing machinery is adequate for rolling and auxiliary operations such as roasting, etching, cleaning and cutting to size. The mechanical properties of sheet SAP vs temperature and deformation in cold rolling are diagrammed and photographs of SAP sheet microstructures are presented. Orig. art. has: 9 photographs, 3 graphs and two tables.

ASSOCIATION: none

SUBMITTED: 00

SUB CODE: MM

NO REF SIV: 000

ENCL: 00

OTHER: 000

Card 2/2

SEVERDENKO, V.P.; TOCHITSKIY, E.I.; SHELAHOV, V.A.

Study of the structure of a deformed material form sintered
aluminum powder. Dokl. AN BSSR 8 no.6:382-385 Je '64.
(MIA 17:1C)
I. Fiziko-tehnicheskiy institut AN BSSR.

L 16620-65 EMP(e)/EMI(m)/EMP(w)/EWA(d)/EPR/EMP(t)/EMP(k)/EMP(b) - pf-4/
PS-4 IJP(c)/SSD(a)/BSD MJW/JD/HW S/0136/64/000/011/0088/0090
ACCESSION NR: AP4049078

AUTHOR: Severdenko, V. P.; Lozhechnikov, Ye. B.; Shelamov, V. A.

TITLE: Rolling SAP foil directly from powder

SOURCE: Tsvetnye metally, no. 11, 1964, 88-90

TOPIC TAGS: aluminum powder, APS-1 aluminum powder, SAP strip, SAP foil, SAP strip rolling, SAP foil rolling, optimum rolling technology

ABSTRACT: Two variants of making SAP strip and foil directly from aluminum powder have been tried. In the first variant, green strip was rolled with the powder and rolls at room temperature. The highest density of green strip (2.35 g/cm^3) with no breaks or cracks was achieved by rolling at a speed of 0.055 m/sec and a gap between rolls (the strip thickness) of 2.3 mm . In the second variant, the powder was preheated to $450-500\text{C}$, and the rolls and bunker were kept at 100C . High-quality strip with a density of 2.4 g/cm^3 was produced at a rolling speed of 0.023 m/sec . Hot-rolled and cold-rolled strips were rolled into foil, up to 150μ thick, with a 10% max reduction per pass and with process annealing at 450C after each pass. The foil

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ACCESSION NR: AP4049078

had a density of 2.8—2.9 g/cm² and a tensile strength of 5 kg/mm² at 500C. Annealing of the strip at 600C for 3 hr before final rolling decreased the tensile strength of the foil to 4 kg/mm², but eliminated blistering and flaking which otherwise would occur in high-temperature annealing. Annealing at 600C for 3 hr caused recrystallization in the foil and a further decrease in tensile strength to 3 kg/mm². The technology recommended for rolling APS-1 aluminum powder into SAP foil up to 150 μ thick consists of cold or hot rolling of powder into strips about 2.5 mm thick, annealing at 620C for 3 hr, and final hot rolling with a 10% max reduction per pass, with process annealing after each pass. Foil up to 100 mm wide and several meters long was made by the same technology. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 007

OTHER: 001

ATD PRESS: 3147

Card 2/2

SEVERDUNKO, V.P.; LOKMECHNIKOV, Ye.B.; SMOLOV, V.A.

Rolling sintered aluminum powder (SAP) strip directly
from powder. TSvet. met. 37 no.11:88-90 '64. (MIRA 13:4)

L 57524-65 EWT(d)/EWP(e)/EWT(m)/EWA(d)/EWP(v)/EPR/EWP(t)/EWP(k)/EWP(h)/
EWP(z)/EWP(b)/EWP(l)/EWA(c) Pf-4/Ps-4 IJP(c) JD/HW

ACCESSION NR: AR5013011

UR/0137/65/000/004/D024/D024
621.771.24+621.762

SOURCE: Ref. zh. Metallurgiya, Abs. 4D156

42
B

AUTHOR: Severdenko, V. P.; Lozhechnikov, Ye. B.; Shelamov, V. A.

TITLE: Rolling SAP strip directly from powder

CITED SOURCE: Tr. 7 Vses. nauchno-tekh. konferentsii po poroshk. metallurgii.
Yerevan, 1964, 290-296

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TOPIC TAGS: aluminum powder, aluminum alloy, rolling mill, metal powder rolling

TRANSLATION: Tests are described on rolling of aluminum powder into strip on a two-high mill with different roll diameters. Power and technological parameters of the rolling process were determined. Results of the investigations are presented and conclusions are derived. A. Leont'yev.

SUB CODE: IE, MM

ENCL: 00

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ACCESSION NR: AP4042728

S/0250/64/008/006/0382/0385

AUTHOR: Severdenko, V. P.; Tochitskiy, E. I.; Shelamov, V. A.

TITLE: An investigation of the structure of a deformed SAP material

SOURCE: AN BSSR. Doklady*, v. 8, no. 6, 1964, 382-385

TOPIC TAGS: aluminum, aluminum powder, SAP, aluminum powder sintering, sintered aluminum powder structure, sintered aluminum powder strength

ABSTRACT: The effect of cold working on the structure of SAP has been investigated. Aluminum powder containing 6-11% Al₂O₃ was cold compacted under a pressure of 35 kg/mm², sintered at 620°C for 6 hr, and hot compacted at 500°C under a pressure of 50 kg/mm². The billets obtained were cold rolled with reductions up to 99.6-99.7%. The structure of sintered SAP was found to consist of an aluminum matrix and a three-dimensional network formed by aluminum oxide. Cold rolling gradually destroys this network and reduces its strengthening

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ACCESSION NR: AP4042728

effect. Cold rolling with reduction up to 95% does not produce any definite texture which could be detected by microscopic examination, but x-ray diffraction patterns revealed a texture in SAP rolled with 83.3% reduction. Annealing of cold-rolled SAP at 650C for 3 hr leads to recrystallization. Orig. art. has: 2 figures.

ASSOCIATION: Fiziko-tehnicheskiy institut AN BSSR (Physicotechnical Institute, AN BSSR).

SUBMITTED: 02Apr64

ATT PRESS: 3086

ENCL: 00

SUB CODE: MM

NO REF Sov: 004

OTHER: 000

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L 35516-65 EWP(e)/EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(b) S/0226/65/000/002/0104/0107
ACCESSION NR: AP5006198 Pf-4 IJP(c) MJW/JD 21 28

AUTHOR: Shelamov, V. A. (Moscow) B

TITLE: The feasibility of rolling SAP foil directly from powder 18 37 14

SOURCE: Poroshkovaya metallurgiya, no. 2, 1965, 104-107

TOPIC TAGS: SAP, SAP powder, powder rolling, foil, SAP foil, SAP foil rolling

ABSTRACT: The feasibility of rolling SAP foil directly from powder has been investigated. [APS-1 powder (8.2% aluminum oxide) was first rolled into a green strip 2.5 mm thick. A sufficiently strong and dense strip was obtained at a rolling speed of 0.05 m/sec and a roll opening of about 2.5 mm. The green strip was sintered at 620-640°C for 6 hr. The sintered strip was either hot rolled (immediately after sintering) or cold rolled with a 10-15% reduction per pass to a thickness of 1.5-1.8 mm or 1 mm, respectively. In hot rolling the rolls have to be lubricated with graphite to prevent the strip from sticking to the rolls. The final cold rolling to a thickness of 100 μ or less was done with a 2-3% reduction per pass. The foil had a tensile strength of 23-26 dan/mm² and an elongation of 2-6% at room temperature; corresponding figures for 500°C were 3.0-3.5 dan/mm² and 3-10%. [WW]

Orig. art. has: 3 figures and 1 table.

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ACCESSION NR: AP5006198

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ASSOCIATION: none

SUBMITTED: 06Apr63

ENCL: 00

SUB CODE: MM

NO REF SOV: 009

OTHER: 000

ATD PRESS: 3217

Powder Metallurgy

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